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SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for the

MISSOURI and ARKANSAS

DRAINAGE BASINS

April 1, 1940

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Issued by the
United States Department of Agriculture
Soil Conservation Service
Division of Irrigation
In Cooperation with
The Colorado Agricultural Experiment Station
Colorado State College
Fort Collins, Colorado

April 6, 1940

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**SNOW SURVEYS AND IRRIGATION WATER FORECASTS
FOR MISSOURI AND ARKANSAS RIVERS**

April 1, 1940

The following data pertaining to snow surveys and irrigation water-supply forecasts are provided by the Division of Irrigation, Soil Conservation Service, of the U. S. Department of Agriculture, in cooperation with State departments, other Federal bureaus and local organizations. The snow measurements are made principally by field personnel of the following organizations: Forest Service, National Park Service, Bureau of Reclamation, U. S. Geological Survey, War Department and State Experiment Stations. This work is otherwise conducted cooperatively with the State Engineer of Colorado, State Planning Board of Wyoming, and various municipalities, irrigation associations, power companies and others. Precipitation records are supplied by the U. S. Weather Bureau.

P R E C I P I T A T I O N D A T A

WATERSHED	STATE	Precipitation October 1 to March 31	Departure from Normal	Precipitation March	Departure from Normal
		Inches	Inches	Inches	Inches
Missouri	East. Mont.	2.77	-0.96	0.76	-0.04
Missouri	Cent. Mont.	4.29	-0.35	0.80	-0.07
Missouri	North. Wyo.	6.04	-1.33	1.81	+0.17
North Platte	Wyoming	5.17	-0.58	1.12	+0.09
South Platte	Colorado	5.90	-0.46	1.95	+0.37
Arkansas	Colorado	4.26	-1.04	0.58	-0.60

OUTLOOK

Precipitation on the watersheds of the North and South Platte Rivers in Colorado and Wyoming and the Yellowstone River in Wyoming was above normal during March, but it was below normal on the watershed of the Arkansas in Colorado and the Missouri River and its tributaries in Montana. There is, however, a pronounced deficiency in the accumulated precipitation since October 1, 1939 in all the watershed.

SUMMARY OF APRIL 1 SNOW SURVEYS AND COMPARISON OF DATA

WITH THAT OF PREVIOUS YEARS BY WATERSHEDS

WATERSHEDS	Snow Depth			Water Content			Number courses Report- ing 1940	Snow Density			1940 Water Content in Percent of	
	Five Year Avg.*	1939	1940	Five year Avg.*	1939	1940		Five year Avg.*	1939	1940	Five year Avg.*	1939
MISSOURI RIVER												
Jefferson River	28.6	28.4	21.8	8.7	9.6	6.8	4	30	34	31	78	71
Madison River	51.6	51.7	41.2	18.4	18.0	14.2	8	36	35	34	77	79
Gallatin River	31.5	31.5	27.4	9.8	9.8	9.4	3	31	31	34	96	96
Missouri River**	28.8	24.8	23.4	8.0	7.4	6.4	7	28	30	27	80	86
Marlax River	---	---	---	---	---	---	--	--	--	--	--	--
Yellowstone River	28.4	28.4	23.5	7.7	7.6	7.1	10	27	27	30	92	93
Shoshone River	52.8	52.3	39.4	15.7	16.4	12.1	4	30	31	31	77	74
Bighorn River	45.1	41.8	26.9	13.3	13.4	8.2	10	29	32	30	62	61
Tongue River	12.9	11.3	8.0	3.2	3.1	2.6	2	25	27	32	81	84
Powder River	22.0	22.5	14.6	4.9	5.6	3.2	2	22	25	22	65	57
North Platte River	57.5	53.6	43.9	19.8	19.3	16.0	11	34	36	36	81	83
Sweetwater River	36.3	28.1	30.9	9.3	8.0	7.7	1	26	28	25	83	96
Laramie River	36.7	35.0	28.8	11.3	10.8	9.9	9	31	31	34	88	92
South Platte River***	19.0	22.6	14.4	5.0	5.0	4.1	3	26	22	28	82	82
Crow Creek	13.7	15.4	11.9	4.3	4.2	3.5	1	31	27	29	81	83
Poudre River	39.9	40.6	32.1	12.6	12.7	10.7	7	32	31	33	85	84
Big Thompson River	66.8	67.7	56.8	21.8	22.3	17.8	2	33	33	31	82	80
St. Vrain River	46.7	45.8	31.7	13.9	13.9	9.6	1	30	30	30	69	69
Boulder Creek	27.0	34.0	25.0	9.0	12.4	9.4	2	33	36	38	104	76
Clear Creek	46.6	57.9	31.5	13.2	18.2	10.0	1	28	31	32	76	55
ARKANSAS RIVER	31.4	34.4	21.7	9.0	9.3	6.9	9	29	27	32	77	74

*Some for shorter periods.

**Headwaters of Missouri River

***Above Denver, Colo.

The water content of the snow on the Jefferson River snow courses in Montana was 6.8 inches on April 1 and 9.6 inches a year ago. The five-year average for these courses is 8.7 inches. For the Madison River courses the depths on these dates were 14.2 inches, 18.0 inches and 18.4 inches; for the Gallatin River course the depths were 9.4 inches, 9.8 inches, and 9.8 inches; and for the courses on the headwaters of the Missouri River the depths were 6.4 inches, 7.4 inches, and 8.0 inches. No comparable data are available for the Marias River courses because the surveys were not made in time to be included in this report.

The water content of the snow on the courses on the Yellowstone River on April 1 was 7.1 inches, which is practically the same as it was a year ago. It is also practically the same as the five-year average. On the Shoshone watershed the water content of the snow was 12.1 inches on April 1, this year; a year ago it was 16.4 inches. The five-year average for April 1 is 15.7 inches. For the Bighorn River courses the water contents on these dates were 8.2 inches, 13.4 inches, and 13.3 inches. The water content of the snow on the North Platte courses was 16.0 inches on April 1, and 19.3 inches on this date a year ago. The five-year average is 19.8 inches. The water contents for the Laramie River courses on these dates were 9.9 inches, 10.8 inches, and 11.3 inches and for the course on the Sweetwater River were 7.7 inches, 8.0 inches, and 9.3 inches.

The snow courses on the South Platte basin above Denver, had an average water content of 4.1 inches on April 1, and 5.0 inches a year ago, which is the same as the five-year average. The corresponding water contents for these dates were 10.7 inches, 12.7 inches, and 12.6 inches for the Poudre River courses; 17.8 inches, 22.3 inches, and 21.8 inches for the Big Thompson River courses; 9.6 inches, 13.9 inches and 13.9 inches for the course on the St. Vrain; 9.4 inches, 12.4 inches, and 9.0 inches for the Boulder Creek courses; and 10.0 inches, 18.2 inches, and 13.2 inches for the course on Clear Creek. The water content of the snow on the Crow Creek course was 3.5 inches on April 1, 4.2 inches a year ago. The five-year average is 4.3 inches.

Reservoir storage in the North Platte Basin at present is only 36 percent of what it was last year, but 63 percent of what it was two years ago. The Shoshone Reservoir was drawn down last winter to permit carrying on some construction work and, consequently, there is very little water in storage at the present time. Storage in Jackson Lake is normal. Storage in the reservoirs along the upper South Platte is 80 percent of what it was last year at this time, and 80 percent more than it was two years ago. In the Lower South Platte Valley the storage is 63 percent of what it was a year ago and the same as it was two years ago. Reservoir storage on the watershed of the tributaries of the South Platte is much below normal. The Poudre River reservoirs have only a third as much in storage as they did a year ago and two-thirds as much as they had two years ago. Reservoirs on the Thompson and St. Vrain Rivers are still practically empty. Most of the reservoirs in the Arkansas Valley also are empty.

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The surface soil is very dry in most areas in Wyoming, and the subsoil also is deficient in moisture. Surface soil moisture is from fair to good in the valleys of the South Platte and Arkansas in Colorado, but it is drying out rapidly. There is still a general shortage of subsoil moisture. There has been no material increase in stream flow although there has been some melting of low lying snow.

The deficiency in snow cover and in precipitation, the shortage of stored water in reservoirs, and the lack of moisture in the soil, make the outlook for irrigation water this summer unfavorable at the present time. It should be kept in mind, however, that our greatest precipitation usually occurs during the next three months and a few heavy storms might, in a short time, considerably improve the situation. The present indications are that the runoff from the Missouri River and its tributaries in Montana will be 25 percent less than last year and that the runoff from the Yellowstone will be only slightly less than **a year ago**. The runoff from the Bighorn and Shoshone will probably be considerably less than last year. The indications are that the runoff from the North Platte and the Laramie River watersheds will be from 10 to 20 percent less than in 1939. This is true also for the South Platte, Poudre and Big Thompson. The runoff from the St. Vrain, Boulder Creek and Clear Creek will be much less unless conditions improve. This also is the situation in the Arkansas River Valley.

THE UNIVERSITY OF CHICAGO

MISSOURI AND ARKANSAS RIVER WATERSHEDS
Summary of Federal and State Cooperative Snow Surveys
Issued April 6, 1940, at Fort Collins, Colo.

Main Drainage and Snow Course	Local Drainage	State	Locality	Descrip- tion	Elev.	National Forest	Apr. 1 Snow Course Measurements			
							Avg.	1939	1940	1940
No.							In.	In.	In.	Content
JEFFERSON RIVER										
6	Camp Creek*	Idaho	6mi. N. Spencer	21-13N-36E	6800	Targhee	29.7	16.8	13.8	4.4
7	Moose Creek*	"	3mi. S. Gibbons P.	27-27N-21E	6200	Salmon	38.6	39.1	29.9	10.4
7	East Fork R.S.*	Mont.	13mi. NE. Sula	16-2N-17W	5400	Bitterroot		10.8		3.3
10	Gibbons Pass	"	Gibbons Pass	4-2S-19W	7100	"		55.4		20.5
30	Pipestone Pass	"	Pipestone Pass	11-1N-7W	7200	Deer Lodge	16.7	21.4	12.0	4.8
30	Elkhorn Hot Spgs	"	8mi. N. Poloris	15-4S-12W	8450	Beaver Head	29.3	27.0	31.6	8.0
31	Storm Lake	"	15mi. W. Anaconda	19-4N-13W	8100	Deer Lodge		--		--
				Average	for Drainage		28.6	28.4	21.8	8.7
MADISON RIVER										
2	Aster Creek*	Wyo.	Lewis Lake	44-3N-110-6W	7700	Yel. Nat. P.	75.0	81.4	61.6	28.0
8	Lewis L. Divide*	"	3mi. S. Lewis L.	44-2N-110-7W	7900	"	104.4	23.0	87.2	44.2
11	Norris Basin	"	Morris Basin	44-3N-110-7W	7500	"	24.3	25.6	23.0	8.7
3	Big Springs*	Idaho	Big Springs	34-14N-44E	6500	Targhee	49.9	49.9	41.0	17.3
16	West Yellowstone	Mont.	W. Yellowstone	34-13S-5E	6700	Gallatin	33.2	24.7	22.8	11.3
	Twenty-one Mile*	"	8mi. S. Gallatin	1-11S-5E	7150	Yel. Nat. P.	47.4	39.3	34.3	16.2
	Hebgen Dam	"	Hebgen Dam	22-11S-3E	6550	Gallatin	39.5	29.6	28.8	13.7
	Valley View	Idaho	5mi. E. Henry's L.	7-15N-44E	6500	Targhee	39.4	39.9	31.0	12.0
				Average	for Drainage		51.6	51.7	41.2	18.4
GALLATIN RIVER										
	Devil's Slide	Mont.	20mi. S. Bozeman	14-5S-6E	8100	Gallatin		63.9		19.9
	Hood Meadow	"	14mi. "	22-4S-6E	6600	"		26.4		7.9
	Hood Meadow Extn.	"	14mi. "	22-4S-6E	6600	"		25.5		7.5
	Mystic Lake No. 1	"	12mi. SE.	31-3S-7E	6600	"		14.5	24.0	6.8
	Mystic Lake No. 2	"	" "	31-3S-7E	6600	"		19.5	24.0	5.9
	Twenty-One Mile	"	8mi. S. Gallatin	1-11S-5E	7150	Yel. Nat. P.		47.4	34.3	16.2
	Ross Peak	"	12mi. N. Bozeman	10-1N-6E	7000	Gallatin		--		--
				Average	for Drainage		31.5	31.5	27.4	9.8

*On adjacent Drainage
Readings March 15

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			Locality	Descrip- tion			Av. Snow Depth		Av. Water Content			
							1939	1940	1939	1940		
MISSOURI RIVER												
6 Chessman Res.	Tennile Cr.	Mont.	11mi. SW. Helena	2-8N-5W	6200	Helena	16.8	10.3	8.2	4.5	3.2	1.9
11 Goat Mountain	South Fork	"	26mi. W. Gilman	47.5N112.9W	7000	Lewis & Clark	22.9	27.4	18.4	6.8	9.1	4.6
36 Stemple Pass	Canyon Creek	"	Stemple Pass	16-13N-7W	6900	Helena	26.0	27.1	25.0	7.3	7.8	6.8
41 Tennile Cr. Lower	Tennile Cr.	"	17mi. SW. Helena	13-8N-6W	6250	"	20.9	16.6	13.7	5.3	4.7	3.7
42 Tennile Cr. Middle	"	"	"	13-8N-6W	6800	"	35.2	33.2	27.5	9.3	10.4	7.2
43 Tennile Cr. Upper	"	"	"	19-8N-5W	8000	"	40.9	38.8	34.3	11.9	12.7	10.2
Grasshopper	Grasshopper Cr.	"	6mi. S. W. S. Spgs	19-9N-8E	7000	Lewis & Clark	13.7	13.7	36.8	11.0	3.3	10.6
King's Hill	Belt Creek	"	21mi. N. W. S. Spgs	35-13N-7E	7950	"	38.8	40.8	36.8	11.0	11.5	10.6
Orville Harris	Mussellshell R.	"	12mi. E. W. S. Spgs	31-10N-9E	6500	"	15.5	24.8	23.4	8.0	3.7	6.4
Average for Drainage							28.8	24.8	23.4	8.0	7.4	6.4
MARIAS RIVER												
7 Desert Mountain*	Gutbend Cr.	Mont.	4mi. S. Belton	24-31N-19W	5600	Flathead	--	--	34.0	--	--	12.0
20 Marias Pass	Two Medicine	"	Summit	48.3N113.4W	5250	Glacier NP	42.2	42.2	34.0	20.4	20.4	12.0
YELLOWSTONE RIVER												
Camp Senia	W. Br. Rock Cr.	Mont.	10mi. W. Redlodge	2-8S-18E	7870	Custer	21.9	26.6	16.0	4.5	5.6	3.9
Cooke City	Scda Butte Cr.	"	Cooke City	25-9S-14E	7400	Absaroka	26.0	23.0	19.0	7.2	6.6	6.5
Grevice Mtn. #1	Yellowstone R.	"	6mi. E. Gardiner	26-9S-9E	8400	Yel. Nat. P.	34.6	31.8	30.0	10.0	9.7	9.5
Grevice Mtn. #2	"	"	7mi. "	25-9S-9E	8200	"	34.8	31.6	30.0	9.8	9.2	9.5
Porcupine	Porcupine Cr.	"	12mi. NE. Wilsall	10-4N-10E	6500	Absaroka	19.5	--	14.0	4.5	--	3.4
3 Canyon	Tower Creek	Wyo.	8mi. N. Canyon Jct.	44.7N110.5W	7750	Yel. Nat. P.	33.6	33.2	34.0	8.6	7.0	10.3
7 Lake Camp	Yellowstone R.	"	3mi. NE. Fishing B.	44.6N110.4W	7850	"	28.0	27.0	29.0	7.7	7.0	8.4
40 Lupine Creek	Lupine Creek	"	11mi. SE. Gardiner	44.9N110.6W	7300	"	29.3	29.1	21.4	8.3	7.9	6.6
41 Blacktail Deer Cr.	Blk. Tail D. Cr.	"	"	44.9N110.6W	7500	"	33.9	33.3	24.7	10.0	9.4	7.6
42 Beaver Dams	"	"	"	44.9N110.6W	7200	"	22.2	19.6	17.1	6.8	5.8	5.5
Average for Drainage							28.4	28.4	23.5	7.7	7.6	7.1

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			Locality					iv. Snow Depth	Av. Water Content				
No.								Avg. 1939	1940	Avg.	1939	1940	
								In.	In.	In.	In.	In.	In.
SHOSHONE RIVER													
32	Sylvan Pass	Middle Cr.	Wyo.	Sylvan Pass	12-52N-110W	7100	Yel. Nat. P.	43.0	40.4	31.5	12.7	11.9	11.3
33	Up. Hardpan Basin	Hardpan Cr.	"	27 mi. SW. Cody	25-51N-106W	9500	Shoshone	36.7	39.5	27.5	8.4	9.6	7.2
50	Brooks Lake #3*	Shoshone R.	"	Brooks Lake	23-44N-110W	9200	Washakie	58.5	57.4	44.5	17.4	18.6	14.2
	Brooks Lake #1*	"	"	"	25-44N-110W	9000	"	73.0	71.8	54.0	24.4	25.6	15.7
							Average for Drainage	52.8	52.3	39.4	15.7	16.4	12.1
BIGHORN RIVER													
	Brooks Lake #1	Wind River	Wyo.	Brooks Lake	25-44N-110W	9000	Washakie	73.0	71.8	54.0	24.4	25.6	15.7
12	Togwotee Pass	Wind River	"	Togwotee Pass	29-44N-110W	9600	Teton	74.9	72.6	55.0	25.7	26.8	16.9
13	Tensleep R.S.	Tensleep Cr.	"	15 mi. NE. Tensleep	30-49N-86W	8300	Bighorn	29.4	27.0	20.7	7.2	5.9	8.0
15	Shell Creek R.W.	Shell Creek	"	13 mi. E. Shell	19-53N-88W	7700	"	24.3	15.8	---	5.7	4.4	---
16	Ranger Creek	Ranger Creek	"	14 mi. E. Shell	32-53N-88W	8800	"	34.5	31.5	20.4	7.4	7.9	5.4
45	Sawmill Glade	Popo Agie R.	"	13 mi. SW. Lander	3-31N-101W	8500	Washakie	---	---	12.4	---	---	4.1
46	Blue Ridge	"	"	15 mi. " "	23-31N-101W	9500	"	---	---	16.7	---	---	5.4
47	South Pass	L. Popo Agie R.	"	19 mi. " "	13-30N-101W	9000	"	---	---	28.3	---	---	7.7
48	Wood River	Wood River	"	42 mi. SW. Cody	28-46N-103W	8900	Shoshone	---	---	8.7	---	---	2.2
49	Sheridan Cr. R. S. #2	Sheridan Cr.	"	16 mi. NW. Dubois	3-42N-109W	7500	Washakie	20.9	16.7	8.7	5.0	4.3	2.8
50	Brooks Lake #3	Wind River	"	Brooks Lake	23-44N-110W	9200	"	58.5	57.4	44.5	17.4	18.6	14.2
							Average for Drainage	45.1	41.8	26.9	13.3	13.4	8.2
TONGUE RIVER													
14	Dome Lake	Goose Cr.	Wyo.	Dome Lake	11-53N-87W	8800	Bighorn	---	---	19.0	---	---	7.0
17	Big Goose Cr. R. S. E. Goose Cr.	Goose Cr.	"	20 mi. SW. Sheridan	4-53N-86W	7700	"	12.9	11.3	8.3	3.2	3.1	2.6
							Average for Drainage	---	---	13.6	---	---	4.8
POWDER RIVER													
30	Red Fork	Middle Fork	Wyo.	23 mi. W. Kaycee	18-43N-85W	7500	Cff Forest	24.5	27.6	11.4	5.8	6.9	3.1
31	Sour Dough	Sour Dough Cr.	"	10 mi. W. Klondike	17-49N-84W	8500	Bighorn	19.4	17.5	17.7	4.0	4.3	3.2
							Average for Drainage	22.0	22.5	14.6	4.9	5.6	3.2

*On adjacent drainage

† Readings on original course.

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			Locality	Description			Av. Snow Depth	1939	1940	Av. Water Content	1939	1940
							In.	In.	In.	Av.	In.	In.
No. PLATTE RIVER												
1	Cameron Pass	Colo.	Cameron Pass	2-6N-76W	10300	Roosevelt	66.2	64.7	51.6	22.3	23.0	17.6
7	Park View	"	7mi. SE. Rand	24-5N-73W	9200	Routt	36.9	38.1	27.8	12.1	14.0	10.0
8	Columbine Lodge	"	Rbt. Ears Pass	21-5 N-82W	9300	"	64.9	60.7	46.9	22.8	22.2	17.9
51	Big Creek Lake	"	5mi. SW. Pearl	9-11N-82W	9000	"	36.4	34.0	20.3	9.5	8.6	6.3
62	Willow Creek P.*	"	Willow Cr. Pass	1-4 N-78W	9500	Arapaho	46.9	49.3	38.7	14.5	16.2	12.4
7	Bottle Creek	Wyo.	7mi. SW. Encampmt	24-14N-85W	8200	Medicine Bow	47.5	39.0	30.2	16.2	13.0	9.8
8	Webber Spring	"	10mi. W. "	27-14N-85W	9000	"	60.3	51.2	38.9	21.1	17.5	14.1
9	Old Battle	"	12mi. W. "	29-14N-85W	9800	"	87.9	77.2	68.1	32.1	29.8	24.7
37	North French Cr.	"	Cent/Saratoga	27-16N-80W	10200	"	81.9	81.1	74.6	32.7	33.9	29.2
38	N. Barrett Cr. #2	"	"	30-16N-80W	9400	"	63.6	62.5	56.7	22.4	23.7	21.6
39	Ryan Park #2	"	"	34-16N-81W	8400	"	40.0	31.9	28.8	12.1	10.2	12.3
SWEETWATER RIVER												
			Average for Drainage				57.5	53.6	43.9	19.8	19.3	16.0
29	Grannier Meadows	Wyo.	20mi. SW. Lander	19-30N-100W	9000	Washakie	36.3	28.1	30.9	9.3	8.0	7.7
LARAMIE RIVER												
3	Brooklyn Lake	Wyo.	7mi. NW. Centennial	11-16N-79W	10200	Medicine Bow	63.1	50.5	43.2	21.7	18.6	15.3
11	Fox Park	"	Fox Park	21-13N-78W	9200	"	32.9	25.1	23.5	10.0	7.3	9.2
34	Pole Mountain #2*	"	10mi. SE. Laramie	35-15N-72W	8700	"	13.7	15.4	11.9	4.3	4.2	3.5
35	Libby Lodge #2	"	3mi. NW. Centennial	29-16N-78W	8700	"	27.5	28.3	18.8	7.9	8.7	6.1
36	Hairpin Turn #2	"	5mi. NW. "	24-16N-79W	9500	"	37.7	33.2	25.8	11.0	10.2	7.6
4	W. Port. G-P. Tunnel	Colo.	4mi. N. Chambers L.	7-8N-75W	8600	Roosevelt	32.7	31.0	21.2	10.0	9.5	9.4
50	Deadman Hill*	"	10mi. W. R. Feather	26-10N-75W	10200	"	46.8	52.2	34.9	13.8	15.5	11.8
71	Deadman Hill #2*	"	8mi. SW. "	6-9N-74W	10200	"	39.4	43.3	28.2	11.4	12.2	8.8
86	Roach	"	8mi. NW. Glendevvey	5-10N-77W	9800	"	---	---	52.1	---	---	17.3
			Average for Drainage				36.7	35.0	28.8	11.3	10.8	9.9

*On adjacent drainage

†Readings on original course

MISSOURI AND ARKANSAS RIVER WATERSHEDS
Summary of Federal and State Cooperative Snow Surveys
Issued April 6, 1940 at Fort Collins, Colo.

Main Drainage and No. Snow Course	Local Drainage	State	Location		Elev.	National Forest	Apr. 1 Snow Course Measurements			
			Locality	Descrip- tion			Av. Snow Depth	1939	1940	1940
							In.	In.	Avg.	In.
SOUTH PLATTE RIVER										
14	Hoosier Pass	Colo.	Hoosier Pass	13-8S-78W	11400	Pike	42.9	55.4	21.9	12.0
15	Fairplay	"	Fairplay	33-9S-77W	10000	"	2.6	4.9	0.0	0.3
83	Jefferson Cr. #2	"	5mi. NW. Jefferson	14-7S-76W	10100	"	11.5	7.4	21.2	2.6
				Average for Drainage			19.0	22.5	14.4	5.0
CROW CREEK										
34	Pole Mountain #2	Wyo.	10mi. SE. Laramie	35-15N-72W	8700	Medicine Bow	13.7	15.4	11.9	4.3
POUDRE RIVER										
1	Cameron Pass	Colo.	Cameron Pass	2-6N-76W	10300	Roosevelt	66.2	64.7	51.6	22.3
2	Chambers Lake	"	Chambers Lake	6-7N-75W	9000	"	23.5	21.7	21.5	8.0
3	Big South	"	2mi. E. Chambers L.	33-8N-75W	8600	"	8.3	5.5	8.8	2.3
50	Deadman Hill	"	10mi. W. R. Feather	26-10N-75W	10200	"	46.8	52.2	34.9	13.8
65	Lake Irene*	"	1mi. SW. Milner P.	8-5N-75W	10600	Ry. Mtn. N.P.	68.0	68.0	56.7	22.9
68	Hour Glass Lake	"	2mi. NW. Pingree P.	18-7N-73W	9500	Roosevelt	27.4	28.6	22.8	7.7
71	Deadman Hill #2	"	8mi. SW. R. Feather	6-9N-74W	10200	"	39.4	43.3	28.2	11.4
				Average for Drainage			39.9	40.6	32.1	12.6
BIG THOMPSON										
65	Lake Irene*	Colo.	1mi. SW. Milner P.	8-5N-75W	10600	Ry. Mtn. N.P.	68.0	68.0	56.7	22.9
67	Fall River	"	12mi. W. Estes P.	6-5N-74W	10600	"	65.7	67.4	57.0	20.7
				Average for Drainage			66.8	67.7	56.8	21.8
ST. VRAIN RIVER										
41	Wild Basin	Colo.	5mi. W. Allens P.	24-3N-74W	10000	Ry. Mtn. N.P.	46.7	45.8	31.7	13.9
BOULDER CREEK										
5	E. Port. Moffat T.	Colo.	East Portal	2-2S-74W	9400	Roosevelt	11.4	8.5	4.4	3.1
60	University Camp #2	"	5mi. SW. Ward	28-1N-73W	10300	"	42.6	59.6	45.4	14.8
				Average for Drainage			27.0	34.0	25.0	9.0

*On adjacent Drainage

+Readings on original course.

Этот листок не публикуется

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Main Drainage and No. Snow Course	Local Drainage	State	Location		Elev.	National Forest	Apr. 1 Snow Course Measurements					
			Locality	Descrip- tion			Av. Snow Depth		Av. Water Content			
							1939	1940	1939	1940	In.	In.
CLEAR CREEK												
61	Loveland Pass #2	Colo.	10 mi. W. Georgetown	27-4S-76W	10100	Arapaho	46.6*	57.9	31.5	13.2*	18.2	10.0
ARKANSAS RIVER												
19	Tennessee Pass	Tennessee Cr. Colo.	Tennessee Pass	21-8S-80W	10200	Cochetopa	36.7	44.7	19.4	8.9	9.0	5.2
21	Twin Lakes Tun.	"	9 mi. W. Twin Lakes	22-11S-82W	10500	"	38.9	44.0	22.7	9.7	10.2	7.2
42	Marshall Creek*	"	Marshall Pass	24-48N-6E	10800	"	45.5	49.8	32.7	13.8	13.4	10.8
43	Poncha Creek	"	"	19-48N-7E	10500	"	35.1	40.3	30.0	10.9	12.1	10.2
72	Whiskey Creek #2	"	Whiskey Cr. Pass	37-2N105.2W	10300	Maxwell Gr.	26.7	18.3	13.7	7.4	6.1	5.2
74	LaVeta Pass #2*	"	LaVeta Pass	22-28S-70W	9300	San Cristobal	23.1*	22.6	15.5	6.8*	7.2	5.5
78	Four Mile Park #2	"	3 mi. SW. Twin L.	23-11S-81W	9700	Cochetopa	7.7*	10.1	2.4	2.0*	2.9	0.8
79	Fremont Pass #2	"	Fremont Pass	2-8S-79W	11400	Arapaho	51.1*	66.8	41.7	16.7*	19.6	11.4
81	Blue Lakes #2	"	15 mi. SW. LaVeta	30-31S-69W	10000	San Isabel	18.1*	13.4*	17.1	4.6*	3.3*	6.0
Average for Drainage							31.4	34.4	21.7	9.0	9.3	6.9

*On adjacent drainage

+Readings on original course.

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